Results. Plasma TNF-a level was higher in IDC (mean 4.82; 95% confidence interval 3.82-6.07 pg/ml) and CHAGAS (6.28 pg/ml; 4.98-7.94pg/ml) as compared to controls (1.30pg/ml; 0.93-1.83 pg/ml)(p<0.001). Plasma TNF-a level was higher in CHAGAS than in IDC after stratification for VO2max (p=0.049). Plasma sTNF-R1 level was higher in IDC only after stratification for functional class (p=0.04). Plasma of IL-6 level were higher in IDC (3.18 pg/ml; 2.35-4.32 pg/ml) and in CHAGAS (6.07pg/ml; 4.42-8.36pg/ml) as compared to controls (0.84pg/ml; 0.63-1.12pg/ml); plasma IL-6 concentration was higher in CHAGAS than in IDC after stratification for functional class (p=0.005). Higher IL-6 levels were associated with worst clinical outcome (p=0.03 for group I; p=0.003 for group II); Plasma BNP concentrations were higher in IDC (350pg/ml) and in CHAGAS (444.6pg/ml) as compared to controls (20.3pg/ml)(p<0.001); higher BNP level was associated to death and heart transplantation. Plasma sFas level was similar among the groups.
Conclusions. Systemic inflammatory and neurohumoral activation is present in patients with Chagas' heart disease, differs from patients with IDC and is associated with heart failure severity and outcome. Thus, it should be considered in the follow-up of patients with Chagas' heart disease.

1062-61 B-Type Natriuretic Peptide Predicts Cardiac Injury and Dysfunction After Subarachnoid Hemorrhage

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Background: An elevated B-type natriuretic peptide (BNP) level is a poor prognostic marker in heart failure and myocardial infarction. However, its role in neurocardiogenic injury after subarachnoid hemorrhage (SAH) is unknown. In this study, we sought to determine the relationship between BNP and cardiac outcomes after SAH. **Methods**: We conducted a prospective study in 57 patients admitted for SAH. On day 1,3, and 6 after enrollment, we collected clinical data (serum troponin I, two-dimensional echocardiogram and chest radiograph) on our subjects. Serum BNP and C-reactive protein levels were measured as soon as possible.
Results: The mean BNP level was 322 ± 518 pg/ml (range 0.8- 3330 pg/ml). Wilcoxon rank-sum tests showed a significant relationship between elevated BNP levels and cardiac endpoints, defined as a high regional wall motion score, impaired diastolic function (impaired relaxation, pseudonormalization, restrictive physiology), radiographic evidence of pulmonary edema, and an elevated troponin I level (see table). In contrast, CRP level, a marker of inflammation, was not associated with any short-term cardiac outcome after SAH.
Conclusions: Elevated BNP, but not CRP, is associated with cardiac injury and dysfunction after SAH. These findings are consistent with the hypothesis that neurocardiogenic injury after SAH is related to neurohumoral activation rather than systemic inflammation. BNP may be a useful marker in identifying SAH patients at high risk of cardiac complications.

BNP is related to cardiac endpoints after SAH

	Mean ± SD (pg/ml)	p	N (%) with cardiac endpoints
RWMS (1.0 vs ≥ 1.0)	267 ±533 vs 488 ±441	0.032	14 (25)
Diastolic function (normal vs abnormal)	128 ±174 vs 383 ± 570	0.037	44 (77)
Pulmonary edema on chest radiograph (no vs yes)	195 ±246 vs 1096 ± 965	0.001	8 (14)
Troponin I (≤1.0 vs >1.0 ug/L)	240 ±508 vs 662 ± 429	0.004	11 (19)

1062-84 Phenotypic and Genotypic Heterogeneity in Cardiac Amyloidosis

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Background. Most of the current knowledge on cardiac amyloidosis comes from the AL type (in which precursor plasma protein is an immunoglobulin light chain) while the characteristics of myocardial involvement and the possible genotype-phenotype correlations in ATTR (caused by mutant transthyretin produced by the liver) remain to be defined.
Methods. We compared echocardiographic and clinical findings of three groups of patients with established amyloidotic myocardial involvement: 60 of AL type, 10 with ATTR Met30 mutation (in which methionine replaces valine at position 30), 16 with non-Met30 ATTR mutations. We also considered ATTR pts as a single group.
Results

	AL	Non-Val30Met ATTR	Val30Met ATTR	ATTR overall	p AL vs ATTR	p ANOVA
N. of pts	**60**	16	10	**26**		
Age (yrs)	**60 ± 9**	47 ± 12	54 ± 17	**49 ± 14**	< .0001	<.0001
IVS (mm)	**18.3 ± 4.4**	16.2 ±4.6	14.3± 5.1	**15.4 ± 4.8**	= .0003	.02
LPW (mm)	**15.9±6**	14.8 ±2.9	12.1± 4.1	**13.8 ± 3.6**	= .02	NS
LVEDID (mm)	**42 ±7.8**	42 ± 3.7	41 ± 3.2	**42 ± 1.4**	NS	NS
LV mass (gr)	**304 ± 35**	305± 125	215± 30	**287 ± 117**	NS	<.0001
LA (mm)	**43.3 ± 8.5**	40 ± 7	36.5± 6.3	**38.3 ± 6.7**	= 0.0001	.03
LV FS (%)	**22 ± 8**	27.8± 11.5	47 ± 2.8	**36 ± 4**	<.001	<.001
Dec time E wave	**128 ± 30**	130 + 14	162± 12	**148 ± 14**	= .001	.001
NYHA>III (%)	**52%**	25%	0	**15%**	= .003	.007
Sinus rhythm (%)	**65%**	88%	100%	**92%**	<.0005	<.001

IVS = Interventricular Septal thickness; LPW = Left Posterior Wall thickness; LVEDD = Left Ventricular End-Diastolic Internal Dimension; LV = Left Ventricular; LA = Left Atrial end-systolic diameter; FS = Fractional Shortening;
Conclusions. Myocardial involvement is more severe in AL than in ATTR. This explains why AL patients develop more frequently diastolic and systolic dysfunction and clinical signs of heart failure. A genotype - phenotype correlation does exist within ATTR amyloidosis. A wide spectrum of morphologic and functional involvement is detectable in cardiac amyloidosis. This impairment is maximal in AL, intermediate in non-Met30 ATTR and minimal in Met30 ATTR.

1062-85 Does Pericardiectomy Improve Outcome of Patients With Mixed Constriction and Restriction?

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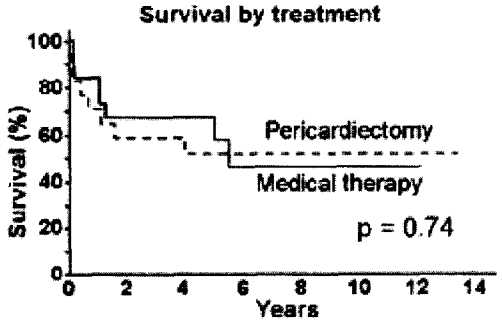
Background: Pericardiectomy can relive symptom in most patients with constrictive pericarditis. However, a significant subgroup of these patients has also restrictive myocardial involvement. The outcome of patients with this mixed disease has not been well described. **Methods:** Study subjects consisted of 38 patients (57 ± 14 yrs, 8 female, 30 male) who were diagnosed as having mixed physiology based on clinical history, transthoracic and/or transesophageal echocardiography, MRI, cardiac catheterization, endomyocardial biopsy and/or surgical findings. Major etiology of the patients included coronary bypass surgery (CABG) after radiation (11), radiation therapy alone (8), CABG without radiation (9), idiopathic (4), heart transplantation (3). Seventeen patients treated with pericardiectomy (58 ± 15 yrs) and 21 patients treated medically (57 ± 14 yrs) were compared using Kaplan-Meier survival analysis. **Results:** There were no differences in age, left ventricular ejection fraction, prior radiation between both groups. Mean observation time was 4.0 ± 3.8 years and maximum observation period was 13.4 years. Five years mortality was 51% in the pericardiectomy group and 58% in the medical therapy group and the survival was not significantly different between both groups (p = 0.739, figure). **Conclusions:** Patients with mixed physiology of constriction and restriction have a high mortality rate. Pericardiectomy for these patients may not improve their survival time.



1062-86 Cardiac Function in Patients With Fukuyama-Type Congenital Muscular Dystrophy

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Backgroud: Fukuyama-type congenital muscular dystrophy (FCMD) is an autosomal recessive disorder characterised by generalised skeletal muscle weakness and hypotonia from early infancy and mental retardation. Mutation of fukutin gene on chromosome